



NOAA Teacher at Sea
Elsa Stuber
Onboard NOAA Ship McARTHUR II
June 4 – 9, 2007

NOAA Teacher at Sea: Elsa Stuber

NOAA Ship MCARTHUR II Cruise S307

Mission: Collecting Time Series of physical, chemical and biological data to document spatial and temporal pattern in the California Current System

DAY 7 Saturday, June 9, 2007 Monterey Bay to San Francisco

Science and Technology Log

Up at 06:00 and arrived in San Francisco @ 08:00

Unloaded equipment, mostly by winch onto truck.

Cleaned quarters and wet and dry labs.

In preparing my report I have included the data from the casts I worked on. As they were a dollar each to reproduce at Kinkos, I decided to only include those four-colored graphs for beam transmission, depth, salinity, and temperature that illustrate different types of locations, near shore or at sea of varying depths. These graphs certainly show the increase in salinity with depth and the falling of temperature with depth. They show the inverse relationship between the beam transmission and fluorescence. Compare Table 3, Table 6, Table 7, and Table 9 that are from very different depths. There is a lot of information here for my students to analyze.

This has been a stimulating learning experience. My students like most high school students are not near the ocean, maybe have never been to an ocean. I think sharing this first hand experience along with the pictures and doing demonstrations of our work and showing the data collected will open a perspective in their minds about the ocean. They will realize from the chlorophyll analysis and fluorescence the narrow level of the bottom of the food chain. This will bring home the concern for the protection of the health of the biotic life in our oceans. I intend to do a mock set up of our lab procedures and have them brainstorm how experimental error could be introduced. This should reinforce the importance of careful procedure in any scientific work.

The scientific staff on this cruise has been exceptional in willing to share their knowledge and, even when we were all tired, to answer my many, many questions about each individuals work in oceanography. I have found them to be conscientious scientists very interested, stimulated in their work. Some have given me pictures. Several have done extended work in Antarctica, which was particularly interesting to me. As well, the MBARI staff was very supportive as the other Teacher At Sea and I were learning

procedures for our work. It felt good to see how cooperative, flexible they all were with one another no matter how long the days. I wish we could have been able to go to the MBARI lab this coming week to see how the work continues there. I intend to go on line and read more about their research and research findings. This will be something to investigate and follow with my students and extending their understanding of the oceans and the oceanographers' work.